

Amendments to the Claims

Please cancel Claims 2, 8, 14, 18, 21, and 23-27 without prejudice or disclaimer.

Please amend Claims 1, 6, 7, 9, 10, 15, 17, 19, 20, and 22 and add Claim 28 to read as follows.

1. (Currently Amended) A conveying apparatus comprising:

a conveyance roller having a spindle;

a driven roller rotating as driven from the conveyance roller;

pressing means for pressing the driven roller to the conveyance roller;

a bearing for supporting the conveyance roller ~~and enclosing an entire periphery of a predetermined portion of the spindle of the conveyance roller;~~

driving means for rotating the conveyance roller; and

drive transmitting means,

wherein the bearing includes two contact portions for contacting the circumference of the spindle for supporting the conveyance roller, and

wherein ~~the bearing supports the conveyance roller so as to locate a direction perpendicular to a line coupling the two contact portions within a range of vector directions of varying exertion forces exerted on the bearing when the conveyance roller is stopped and when the conveyance roller is rotating~~ , if a force exerting on the bearing during stopping is vector F_{v0} , a force exerting on the bearing during starting up is vector

Fv1, and a combined vector of vectors Fv1 and Fv0 is set as Ft, Ft becomes a vector extending in a direction inclined by angle θ_t from the perpendicularly downward direction, and the two contact portions are formed at positions in symmetry with respect to a direction of angle θ_t of the vector Ft.

2. (Cancelled)

3. (Previously Presented) The conveying apparatus according to Claim 1, wherein a diameter of the spindle is equal to a diameter of the conveyance roller.

4. (Cancelled)

5. (Previously Presented) The conveying apparatus according to Claim 1, wherein the bearing supports the spindle at both sides of the conveyance roller.

6. (Currently Amended) The conveying apparatus according to one of Claims 2, 3 and 5, wherein the two contact portions are in a plane.

7. (Currently Amended) A conveying apparatus comprising:
a conveyance roller having a spindle;
a driven roller rotating as driven from the conveyance roller;

pushing means for pushing the driven roller to the conveyance roller;
a bearing for supporting the conveyance roller ~~and enclosing an entire~~
~~periphery of a predetermined portion of the spindle of the conveyance roller;~~
a chassis for supporting the conveyance roller;
driving means for rotating the conveyance roller; and
drive transmitting means,
wherein the chassis includes two contact portions for supporting the
circumference of the bearing, and
wherein ~~the chassis supports the bearing as to locate a direction~~
~~perpendicular to a line coupling the two contact portions within a range of vector directions~~
~~of varying exertion forces exerted on the bearing when the conveyance roller is stopped~~
~~and when the conveyance roller is rotating , if a force exerting on the bearing during~~
~~stopping is vector F_{v0} , a force exerting on the bearing during starting up is vector F_{v1} , and~~
~~a combined vector of vectors F_{v1} and F_{v0} is set as F_t , F_t becomes a vector extending in a~~
~~direction inclined by angle θ_t from the perpendicularly downward direction, and the two~~
~~contact portions are formed at positions in symmetry with respect to a direction of angle θ_t~~
~~of the vector F_t .~~

8. (Cancelled)

9. (Currently Amended) The conveying apparatus according to Claim 7 ~~or Claim 8~~, wherein the two contact portions are in a plane.

10. (Currently Amended) A conveying apparatus comprising:
a conveyance roller having a spindle;
a driven roller rotating as driven from the conveyance roller;
pushing means for pushing the driven roller to the conveyance roller;
a bearing for supporting the conveyance roller ~~and enclosing an entire periphery of a predetermined portion of the spindle of the conveyance roller;~~
a chassis for supporting the conveyance roller;
driving means for rotating the conveyance roller; and
drive transmitting means,
wherein the bearing includes ~~two~~ first and second contact portions for contacting the conveyance roller,
wherein the chassis includes ~~two~~ third and fourth contact portions for supporting the circumference of the bearing, and
~~wherein the bearing supports the conveyance roller so as to locate a direction perpendicular to a line coupling the two contact portions of the bearing within a range of vector directions of varying exertion forces exerted on the bearing when the conveyance roller is stopped and when the conveyance roller is rotating, and~~

wherein the chassis supports the bearing so as to locate a direction perpendicular to a line coupling the two contact portions of the chassis within a range of vector directions of exertion forces exerted on the bearing when the conveyance roller is stopped and when the conveyance roller is rotating, if a force exerting on the bearing during stopping is vector F_{v0} , a force exerting on the bearing during starting up is vector F_{v1} , and the combined vector of vectors F_{v1} and F_{v0} is set as F_t , F_t becomes a vector extending in a direction inclined by angle θ_t from the perpendicularly downward direction, the first contact portions and the second contact portion are formed at positions in symmetry with respect to a direction of angle θ_t of the vector F_t , and the third contact portion and the fourth contact portion are formed at positions in symmetry with respect to a direction of angle θ_t of the vector F_t .

11. (Previously Presented) The conveying apparatus according to Claim 10, wherein the conveyance roller has the spindle supported by the bearing and a roller portion for conveying performance, and a diameter of the spindle equals a diameter of the conveyance roller.

12. (Canceled)

13. (Previously Presented) The conveying apparatus according to Claim 10, wherein the conveyance roller has the spindle supported by the bearing and a

roller portion for conveying performance, and the bearing supports the spindle at both sides of the conveyance roller.

14. (Cancelled)

15. (Currently Amended) The conveying apparatus according to ~~one of Claims 10, 11, 13 and 14~~ Claim 10, wherein the ~~two~~ first and second contact portions of the bearing are in a plane and the ~~two~~ third and fourth contact portions of the chassis are in a plane.

16. (Previously Presented) The conveying apparatus according to Claim 15, wherein a contact portion of the bearing and a contact portion of the chassis are located on a same line passing through the center of the conveyance roller.

17. (Currently Amended) A recording apparatus for forming images on a recording medium, comprising:

a conveyance roller ~~for conveying the recording medium, the conveyance roller~~ having a spindle;

a driven roller rotating as driven from the conveyance roller;

pressing means for pressing the driven roller to the conveyance roller; ~~and~~

a bearing for supporting the conveyance roller ~~and enclosing an entire~~
~~periphery of a predetermined portion of the spindle of the conveyance roller,~~
driving means for rotating the conveyance roller; and
drive transmitting means,
wherein the bearing is ~~in contact with an outer peripheral surface of the~~
~~conveyance roller and includes two contact portions arranged in a circumferential direction~~
~~of the conveyance roller~~ for contacting the circumference of the spindle for supporting the
conveyance roller, and
wherein a ~~direction perpendicular to a line coupling the two contact portions~~
~~is located, in an arbitrary cross-section perpendicular to the axial direction of the~~
~~conveyance roller, within a range of vector directions of varying exertion forces exerted on~~
~~the bearing when the conveyance roller is stopped and when the conveyance roller is~~
~~rotating~~ ,if a force exerting to the bearing during stopping is vector F_{v0} , a force exerting to
the bearing during starting up is vector F_{v1} , and the combined vector of vectors F_{v1} and
 F_{v0} is set as F_t , F_t becomes a vector extending in a direction inclined by angle θ_t from the
perpendicularly downward direction, and the two contact portions are formed at positions
in symmetry with respect to a direction of angle θ_t of the vector F_t .

18. (Cancelled)

19. (Currently Amended) The recording apparatus according to Claim 17 ~~or Claim 18~~, wherein the two contact portions are in a plane.

20. (Currently Amended) A recording apparatus for forming images on a recording medium, comprising:

a conveyance roller ~~for conveying the recording medium, the conveyance roller~~ having a spindle;

a driven roller rotating as driven from the conveyance roller;

~~pressing~~ pushing means for ~~pressing~~ pushing the driven roller to the conveyance roller;

a bearing for supporting the conveyance roller ~~and enclosing an entire periphery of a predetermined portion of the spindle of the conveyance roller; and~~

a chassis for supporting the ~~bearing~~ conveyance roller,

driving means for rotating the conveyance roller; and

drive transmitting means,

wherein the bearing includes first and second contact portions for contacting the conveyance roller,

wherein the chassis ~~is in contact with an outer peripheral surface of the bearing and includes two~~ third and fourth contact portions ~~arranged in a circumferential direction for supporting the circumstances~~ of the bearing, and

~~wherein a direction perpendicular to a line coupling the two contact portions is located, in an arbitrary cross-section perpendicular to the axial direction of the bearing, within a range of vector directions of varying exertion forces exerted on the bearing when the conveyance roller is stopped and when the conveyance roller is rotating , if a force exerting on the bearing during stopping is vector F_{v0} , a force exerting on the bearing during starting up is vector F_{v1} , and the combined vector of vectors F_{v1} and F_{v0} is set as F_t , F_t becomes a vector extending in a direction inclined by angle θ_t from the perpendicularly downward direction, the first contact portions and the second contact portion are formed at positions in symmetry with respect to a direction of angle θ_t of the vector F_t , and the third contact portion and the fourth contact portion are formed at positions in symmetry with respect to a direction of angle θ_t of the vector F_t .~~

21. (Cancelled)

22. (Currently Amended) The recording apparatus according to Claim 20 ~~or Claim 21~~, wherein the two contact portions are in a plane.

23-27. (Cancelled)

28. (New) A conveying apparatus comprising:
a conveyance roller having a spindle;

a driven roller rotating as driven from the conveyance roller;

pressing means for pressing the driven roller to the conveyance roller;

a bearing for supporting the conveyance roller;

driving means for rotating the conveyance roller; and

drive transmitting means,

wherein the bearing includes two contact portions for contacting the circumference of the spindle for supporting the conveyance roller, and

wherein, if a force exerting on the bearing during acceleration is vector $Fv2$, a force exerting on the bearing during deceleration is vector $Fv4$, and the combined vector of vectors $Fv2$ and $Fv4$ is set as Ft , Ft becomes a vector extending in a direction inclined by angle θt from the perpendicularly downward direction, and the two contact portions are formed at positions in symmetry with respect to a direction of angle θt of the vector Ft .